UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

DATE: JUL 16 2015

SUBJECT: Removal Site Evaluation for Niagara Falls Smelting and Refining Corporation, Division of Continental Copper and Steel Industries, 2200-2208 Elmwood Avenue, Buffalo, Erie County, New York

FROM: Nick Magriples, On-Scene Coordinator
Removal Assessment and Enforcement Section

TO: Joseph D. Rotola, Chief
Removal Action Branch

Introduction

The United States Environmental Protection Agency (EPA) Region II Removal Action Branch (RAB) has been requested by the EPA Special Projects Branch to determine whether a Comprehensive Environmental Response and Liability Act (CERCLA) removal action was warranted at Niagara Falls Smelting and Refining Corporation, Division of Continental Copper and Steel Industries (Site). The Site was included on a list of hundreds of locations nationwide where secondary lead smelting or alloying may have been conducted between 1931 and 1964, according to entries in historical trade publications. The list was originally compiled by William P. Eckel in a doctoral dissertation for George Mason University, and the research was summarized in an article entitled, "Discovering Unrecognized Lead-Smelting Sites by Historical Methods" (Eckel et al, 2001). In total, 89 of the sites on this list are in New York State. The New York State Department of Environmental Conservation assessed the majority of the sites and ultimately referred 40 of these sites to EPA for further assessment.

Site description and background

The Site is located at 2200-2208 Elmwood Avenue in Buffalo, Erie County, New York in a mixed commercial, industrial and residential area. It currently consists of a number of commercial and light industrial businesses, such as a coffee shop, automobile repair shop, and metal and glass fabrication. The Site is bordered to the north, south, and east by other commercial and industrial facilities; however, a large residential area is located just beyond Elmwood Avenue (within 400 to 600 feet) to the north and east of the former smelter. Available Sanborn maps and aerial photographs indicate that development of the residential area occurred before or during the years that the facility was in operation. A baseball field and basketball courts are located within 100 feet of the Site to the west. According to available wind rose plots, the prevailing wind direction in Buffalo is approximately southwest to northeast, indicating that the residential neighborhood is downwind of the Site.

Available city directories indicate that Niagara Falls Smelting & Refining Corp. occupied various addresses along Elmwood Avenue (2200, 2204, and 2208) from as early as 1925 to at least 1960. For at least a portion of those years, the company produced alloys used in hardening and tempering steel for military equipment. Continental Copper and Steel Industries was founded in 1944. The 1950 Sanborn map indicates that the Niagara Falls Smelting & Refining Div. of Continental Copper & Steel Industries Inc. occupied 2204-2208 Elmwood Avenue. The largest building associated with the former smelting facility, located along Ramsdell Avenue, contained "blower system smelting furnaces" however; no stack was evident on this building. Other buildings to the west included metal storage and furnaces with evidence of stacks. According to historical aerial photographs, the baseball field was an open field and/or baseball field as far back as 1938.

A large industrial complex known as the Curtis-Wright Plant No. 3 existed at 2050 Elmwood Avenue from 1917 to the early 1930s, approximately 1,000 feet south-southwest of the Site. The company manufactured commercial and military aircraft. The main building was 45 acres in size and the complex included a smaller structure with a large stand-alone stack less than 900 feet southwest of the Site. The buildings associated with this facility were eventually redeveloped, in part, as a shopping mall and the remainder leased as warehouses.

Site assessment activities/observations

The Pre-remedial site files, which included a Pre-Comprehensive Environmental Response, Compensation and Liability Information System Screening Form for the Site as well as historic Sanborn maps and city directories, were reviewed as part of this RSE. In addition, an internet search for historic articles and aerial photographs was conducted.

Site visits were conducted by the Pre-remedial Site Assessment Team (SAT) contractor and RAB on April 1, 2014 and April 29, 2014, respectively. It appears that the majority of the buildings used as part of the former smelting facility still exist today. The largest on-site building, which appears to be the same building that historically contained the "smelting furnaces," is currently an automobile storage garage. The majority of the former facility footprint is covered by buildings or by an asphalt parking lot; however, some portions of the ground surface are gravel and dirt-covered with some small patches of exposed soil.

The SAT contractor collected soil samples from the Site on October 27 and November 10, 2014. The samples were collected from 14 locations near the former Site. Due to the absence of exposed soil, potential source samples were not collected from the Site. Samples collected from two locations on Ramsdell Avenue, just north of the Site, were considered to be in the immediate vicinity of the Site with potential for site-related contamination. Potential release samples were collected from eight downwind sample locations based on historically predominant wind directions; these samples were collected north, east, and northeast of the Site. The four sample locations west and southwest of the Site were considered as background sample locations. At each sample location, except for three where the auger encountered refusal, soil samples were collected at multiple depth intervals ranging down to 24 inches. The samples were collected from the rights-of-way located along Hinman Avenue, Ramsdell Avenue, Elmwood Avenue, West Hazeltine Avenue, as well as a grassy area within Ramsdell Park.

The highest lead levels were identified in the samples collected in the predominantly upwind direction of the Site. Two of these four upwind samples contained lead ranging from 460 mg/kg to 520 mg/kg, at sample depths of less than six inches. The highest lead concentration identified in these samples was at a depth of 0 to 1 inch. The maximum concentration of lead detected at the two locations on Ramsdell Avenue considered to be in the immediate site vicinity was 160 mg/kg at a depth of 12 to 16 inches. Tin (66 mg/kg), copper (840 mg/kg) and antimony (4.9 mg/kg) were detected in these samples at higher concentrations than those samples collected in the predominantly upwind direction. The maximum concentration of lead detected in the predominantly downwind samples was 370 mg/kg at a depth of 0 to 1 inch. Four of the eight downwind samples contained lead at concentrations ranging between 300 mg/kg and 370 mg/kg, at sample depths less than one foot. Tin (16 mg/kg), copper (190 mg/kg), cadmium (2.6 mg/kg), zinc (460 mg/kg) and antimony (3.8 mg/kg) were detected in these samples at higher concentrations than those samples collected in the predominantly upwind direction.

Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

The concentrations of lead identified in the samples collected are the highest in the predominantly upwind direction which would indicate that a release of lead from the Site has not been documented. Concentrations of tin, copper, antimony, cadmium and zinc were identified at higher concentrations in the soils in the immediate vicinity of, and in the predominantly downwind direction from the Site relative to those collected in the predominantly upwind direction. It should be noted that tin is not a CERCLA-designated hazardous substance.

Threats to public health or welfare

All metals identified in the samples collected in the immediate vicinity of, and in the predominantly downwind direction from the Site are below EPA Removal Management Levels for both residential and industrial soil.

Threats to the environment

At this time there is no information to indicate that the Site is currently having an acute impact to the surrounding environment.

Conclusions

Based on the available information, the Site does not warrant a CERCLA removal action at this time.

cc: E. Wilson, ERRD-RAB
B. Grealish, ERRD-RAB
A. Fessler, ERRD-SPB
Region 2 Records Center